# Chemical Stockpile Emergency Preparedness Program (CSEPP) Glossary

## Second Edition

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# INTRODUCTION

During a series of meetings in the fall of 1993, a group of CSEPP planners identified disagreements in terminology as a primary problem in CSEPP planning. They decided that a common source of definitions was needed for all program participants. As a result, Innovative Emergency Management, Inc. (IEM) was tasked to develop a glossary of common CSEPP terms. This glossary, the result of that request, contains definitions for 334 terms and 202 acronyms that are commonly used in the CSEPP.

In assembling this glossary, IEM's goal has been to include primarily those terms which would be useful to everyone involved in the program. As a result, many more specific terms were not included. The reader is encouraged to check the following sources for definitions that cannot be found in this glossary:

- Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations.* Department of the Army Pamphlet 50-6, 1991.

- Department of the Army, Federal Emergency Management Agency, and Oak Ridge National Laboratory. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program.* Department of the Army, FEMA, ORNL, 1992.

- Federal Emergency Management Agency. *Guide for the Development of State and Local Emergency Operations Plans.* FEMA Civil Preparedness Guide 1-8, September, 1990.

# CSEPP ACRONYMS

| | |
|---|---|
| **AC** | **A**lternating **C**urrent |
| **ACAMS** | **A**utomatic **C**ontinuous **A**ir **M**onitoring **S**ystem |
| **ACGIH** | **A**merican **C**onference of **G**overnmental **I**ndustrial **H**ygienists |
| **ACP** | **A**ccess **C**ontrol **P**oint |
| **ADP** | **A**utomated **D**ata **P**rocessing |
| **AEL** | **A**dverse **E**ffect **L**evel or **A**irborne **E**xposure **L**imit |
| **ALS** | **A**dvanced **L**ife **S**upport |
| **AMC** | **A**rmy **M**ateriel **C**ommand |
| **AMCCOM** | **A**rmament **M**unitions and **C**hemical **COM**mand |
| **ANAD** | **AN**niston **A**rmy **D**epot |
| **ANCDF** | **AN**niston **C**hemical **D**isposal **F**acility |
| **ANL** | **A**rgonne **N**ational **L**aboratory |
| **ANSI** | **A**merican **N**ational **S**tandards **I**nstitute |
| **AOC** | **A**rmy **O**perations **C**enter |
| **APG** | **A**berdeen **P**roving **G**round |
| **AR** | **A**rmy **R**egulation |
| **ARC** | **A**merican **R**ed **C**ross |
| **ARES** | **A**mateur **R**adio **E**mergency **S**ervice |
| **ASA (IL & E)** | **A**ssistant **S**ecretary of the **A**rmy (**I**nstallation, **L**ogistics, and **E**nvironment) |
| **ASC** | **A**llowable **S**tack **C**oncentration |
| **ASCII** | **A**merican **S**tandard **C**ode for **I**nformation **I**nterchange |
| **BDO** | **B**attle **D**ress **O**vergarment |
| **BGAD** | **B**lue **G**rass **A**rmy **D**epot |
| **CAD** | **C**omputer-**A**ided **D**esign or **C**omputer **A**ided **D**ispatch |
| **CAI** | **C**hemical **A**ccident/**I**ncident |
| **CAIC** | **C**hemical **A**ccident/**I**ncident **C**ontrol |
| **CAICO** | **C**hemical **A**ccident/**I**ncident **C**ontrol **O**fficer |
| **CAIRA** | **C**hemical **A**ccident/**I**ncident **R**esponse and **A**ssistance |
| **CAM** | **C**hemical **A**gent **M**onitor or **C**omputer-**A**ided **M**anufacturing |
| **CAMDS** | **C**hemical **A**gent **M**unition **D**isposal **S**ystem |
| **CAMS** | **C**ontinuous **A**ir **M**onitoring **S**ystem |
| **CAT** | **C**risis **A**ction **T**eam |
| **CBDCOM** | **C**hemical and **B**iological **D**efense **COM**mand |
| **CCA** | **C**omprehensive **C**ooperative **A**greement |
| **CDC** | **C**enters for **D**isease **C**ontrol |
| **CEMS** | **C**ontinuous **E**mission **M**onitoring **S**ystem |
| **CENL** | **C**hemical **E**vent **N**otification **L**evel |
| **CERCLA** | **C**omprehensive **E**nvironmental **R**esponse, **C**ompensation, and **L**iability **A**ct |
| **CFR** | **C**ode of **F**ederal **R**egulations |
| **CHAWS** | **C**hemical **HA**zard **W**arning **S**ystem |
| **ChE** | **C**holin**E**sterase |
| **CONUS** | **CON**tinental **U**nited **S**tates |
| **COTS** | **C**ommercial **O**ff-**T**he-**S**helf |
| **CPG** | **C**ivil **P**reparedness **G**uide |
| **CSDP** | **C**hemical **S**tockpile **D**isposal **P**rogram |
| **CSEPP** | **C**hemical **S**tockpile **E**mergency **P**reparedness **P**rogram |

| | |
|---|---|
| **CSM** | **C**hemical **S**urety **M**ateriel |
| **D2PC** | (Army computer dispersion model) |
| **DA** | **D**epartment of the **A**rmy |
| **DAAMS** | **D**epot **A**rea **A**ir **M**onitoring **S**ystem |
| **DARCOM** | **D**evelopment **A**nd **R**eadiness **COM**mand |
| **DC** | **D**irect **C**urrent |
| **DCAC** | **D**emilitarization **C**hemical **A**gent **C**oncentrator |
| **DCX** | **D**irection and **C**ontrol e**X**ercise |
| **DESCOM** | **DE**pot **S**ystem **COM**mand |
| **DHHS** | **D**epartment of **H**ealth and **H**uman **S**ervices |
| **DOD** | **D**epartment **O**f **D**efense |
| **DODESB** | **D**epartment **O**f **D**efense **E**xplosive **S**afety **B**oard |
| **DOE** | **D**epartment **O**f **E**nergy |
| **DOIM** | **D**irector **O**f **I**nformation **M**anagement |
| **DOT** | **D**epartment of **T**ransportation |
| **DTLOM** | **D**octrine **T**raining **L**eader Development **O**rganizations **M**ateriel |
| **EAS** | **E**mergency **A**lert **S**ystem |
| **EBS** | **E**mergency **B**roadcast **S**ystem |
| **EEGL** | **E**mergency **E**xposure **G**uidance **L**evel |
| **EEM** | **E**xercise **E**valuation **M**ethodology |
| **EIS** | **E**mergency **I**nformation **S**ystem or **E**nvironmental **I**mpact **S**tatement |
| **EMI** | **E**mergency **M**anagement **I**nstitute |
| **EMIS** | **E**mergency **M**anagement **I**nformation **S**ystem |
| **EMS** | **E**mergency **M**edical **S**ystem |
| **EOC** | **E**mergency **O**perating **C**enter |
| **EOD** | **E**xplosive **O**rdnance **D**isposal |
| **EOP** | **E**mergency **O**perations **P**lan |
| **EPA** | **E**nvironmental **P**rotection **A**gency |
| **EPG** | **E**mergency **P**lanning **G**uide |
| **EPZ** | **E**mergency **P**lanning **Z**one |
| **ERCP** | **E**mergency **R**esponse **C**oncept **P**lan |
| **ERDEC** | **E**dgewood **R**esearch, **D**evelopment and **E**ngineering **C**enter |
| **ETA** | **E**stimated **T**ime of **A**rrival |
| **ETE** | **E**vacuation **T**ime **E**stimate |
| **EXPLAN** | **EX**ercise **PLAN** |
| **FEMA** | **F**ederal **E**mergency **M**anagement **A**gency |
| **FEMIS** | **F**ederal **E**mergency **M**anagement **I**nformation **S**ystem |
| **FPEIS** | **F**inal **P**rogrammatic **E**nvironmental **I**mpact **S**tatement (for the **CSDP**) |
| **FS** | **F**easibility **S**tudy |
| **FSX** | **F**ull-**S**cale e**X**ercise |
| **GPL** | **G**eneral **P**opulation **L**imit |
| **GVO** | **G**reen **V**inyl **O**verboot |
| **HAZMAT** | **HAZ**ardous **MAT**erials |
| **HEPA** | **H**igh **E**fficiency **P**articulate **A**ir |
| **HOTMAC** | **H**igh **O**rder **T**urbulence **M**odel for **A**tmospheric **C**irculation |
| **HQDA** | **H**eadquarters, **D**epartment of the **A**rmy |
| **HVA** | **H**azard **V**ulnerability **A**nalysis |
| **HYFED** | **H**ydrogen **F**lame **P**hotometric **E**mission **D**etector |
| **IBS** | **I**ntegrated **B**aseline **S**ystem |

| | |
|---|---|
| **ICCB** | **I**ntergovernmental **C**onsultation and **C**oordination **B**oard |
| **ICS** | **I**ncident **C**ommand **S**ystem |
| **IDLH** | **I**mmediately **D**angerous to **L**ife and **H**ealth |
| **IDYNEV** | **I**nteractive **DYN**amic **EV**acuation model |
| **IEMIS** | **I**ntegrated **E**mergency **M**anagement **I**nformation **S**ystem |
| **IP** | **I**mplementing **P**rocedure |
| **IPR** | **I**n-**P**rocess **R**eview |
| **IRF** | **I**nitial **R**esponse **F**orce |
| **IRZ** | **I**mmediate **R**esponse **Z**one |
| **JA** | **J**ohnston **A**toll |
| **JACADS** | **J**ohnston **A**toll **C**hemical **A**gent **D**isposal **S**ystem |
| **JI** | **J**ohnston **I**sland |
| **JIB** | **J**oint **I**nformation **B**ureau |
| **JIC** | **J**oint **I**nformation **C**enter |
| **JIS** | **J**oint **I**nformation **S**ystem |
| **JPIC** | **J**oint **P**ublic **I**nformation **C**enter |
| **KBPS** | **K**ilo**B**its **P**er **S**econd |
| **KM** | **K**ilo**M**eter |
| **LBAD** | **L**exington **B**lue **G**rass **A**rmy **D**epot |
| **LEL** | **L**owest **E**ffect **L**evel |
| **LEPC** | **L**ocal **E**mergency **P**lanning **C**ommittee |
| **LOAEL** | **L**owest **O**bserved **A**dverse **E**ffect **L**evel |
| **MCE** | **M**aximum **C**redible **E**vent |
| **MINICAM** | **MINI**ature **C**hemical **A**gent **M**onitor |
| **MOA** | **M**emorandum **O**f **A**greement |
| **MOU** | **M**emorandum of **U**nderstanding |
| **MRT** | **M**edical **R**esponse **T**eam |
| **MSDS** | **M**aterial **S**afety **D**ata **S**heet |
| **MSEL** | **M**aster **S**cenario **E**vent **L**ist |
| **NAAP** | **N**ewport **A**rmy **A**mmunition **P**lant (obsolete) |
| **NAWAS** | **N**ational **A**lert and **WA**rning **S**ystem |
| **NCP** | **N**ational **C**ontingency **P**lan |
| **NDA** | **N**ational **D**efense **A**rea |
| **NDMS** | **N**ational **D**efense **M**edical **S**ystem |
| **NECA** | **NE**wport **C**hemical **A**ctivity |
| **NEPA** | **N**ational **E**nvironmental **P**olicy **A**ct |
| **NIOSH** | **N**ational **I**nstitute for **O**ccupational **S**afety and **H**ealth |
| **NOAA** | **N**ational **O**ceanic and **A**tmospheric **A**dministration |
| **NPDES** | **N**ational **P**ollutant **D**ischarge **E**limination **S**ystem |
| **NPL** | **N**ational **P**riorities **L**ist |
| **NRC** | **N**ational **R**esponse **C**enter or **N**ational **R**esearch **C**ouncil |
| **NRS** | **N**ational **R**esponse **S**ystem |
| **NRT** | **N**ational **R**esponse **T**eam |
| **NWS** | **N**ational **W**eather **S**ervice |
| **ONC** | **ON**-site **C**ontainer |
| **OPSEC** | **OP**erational **SEC**urity |
| **OREMS** | **O**ak **R**idge **E**vacuation **M**odeling **S**ystem |
| **ORNL** | **O**ak **R**idge **N**ational **L**aboratory |
| **OSC** | **O**n-**S**cene **C**oordinator |

| | |
|---|---|
| **OSHA** | **O**ccupational **S**afety and **H**ealth **A**dministration |
| **PA** | **P**ublic **A**ffairs |
| **PAD** | **P**rotective **A**ction **D**ecision |
| **PADRE** | **P**rotective **A**ction **D**osage **R**eduction **E**stimator |
| **PAECE** | **P**rotective **A**ction **E**valuator for **C**hemical **E**mergencies |
| **PAO** | **P**ublic **A**ffairs **O**fficer |
| **PAPR** | **P**owered **A**ir **P**urifying **R**espirator |
| **PAR** | **P**rotective **A**ction **R**ecommendation or **P**opulation **A**t **R**isk |
| **PARDOS** | **PAR**tial **DOS**age |
| **PAZ** | **P**rotective **A**ction **Z**one |
| **PBA** | **P**ine **B**luff **A**rsenal |
| **PC-DYNEV** | **P**ersonal **C**omputer **DYN**amic **EV**acuation model |
| **PDA** | **P**ueblo **D**epot **A**ctivity |
| **PDS** | **P**ersonnel **D**econtamination **S**tation |
| **PEL** | **P**ermissable **E**xposure **L**imit |
| **PIO** | **P**ublic **I**nformation **O**fficer |
| **PL** | **P**ublic **L**aw |
| **PM** | **P**rogram **M**anager |
| **PNNL** | Battelle **P**acific **N**orthwest **N**ational **L**aboratory |
| **POC** | **P**oint **O**f **C**ontact |
| **POR** | **P**oint of **R**eview |
| **PPE** | **P**ersonal **P**rotective **E**quipment |
| **PRP** | **P**ersonnel **R**eliability **P**rogram |
| **PUDA** | **PU**eblo **D**epot **A**ctivity |
| **PZ** | **P**recautionary **Z**one |
| **RACES** | **R**adio **A**mateur **C**ivil **E**mergency **S**ervice |
| **RAPTAD** | **RA**ndom **P**article **T**ransport **A**nd **D**iffusion |
| **RCRA** | **R**esource **C**onservation and **R**ecovery **A**ct |
| **RDTE** | **R**esearch, **D**evelopment, **T**est, and **E**valuation |
| **REP** | **R**adiological **E**mergency **P**reparedness |
| **RI** | **R**emedial **I**nvestigation |
| **RIA** | **R**equiring **I**mmediate **A**ction |
| **RPM** | **R**emedial **P**roject **M**anager |
| **RRT** | **R**egional **R**esponse **T**eam |
| **RTAP** | **R**eal-**T**ime **A**nalytical **P**latform |
| **SARA** | **S**uperfund **A**mendments and **R**eauthorization **A**ct of 1986 |
| **SCBA** | **S**elf-**C**ontained **B**reathing **A**pparatus |
| **SERC** | **S**tate **E**mergency **R**esponse **C**ommission |
| **SIMCELL** | **SIM**ulation **CELL** |
| **SOP** | **S**tandard **O**perating **P**rocedure |
| **SPEGL** | **S**hort-term **P**ublic **E**mergency **G**uidance **L**evel |
| **SRF** | **S**ervice **R**esponse **F**orce |
| **SRFC** | **S**ervice **R**esponse **F**orce **C**ommander |
| **TAR** | **T**one **A**lert **R**adio |
| **TCP** | **T**raffic **C**ontrol **P**oint |
| **TDD** | **T**eletype **D**evice for the **D**eaf |
| **TEAD** | **T**oo**E**le **A**rmy **D**epot |
| **TEU** | **T**echnical **E**scort **U**nit |
| **THAMIC** | **T**oxic **H**azard **A**nalysis **M**odel for **I**ndustrial **C**hemicals |

| | |
|---|---|
| **TIGER** | **T**opologically **I**ntegrated **G**eographic **E**ncoding and **R**eference |
| **TLV** | **T**hreshold **L**imit **V**alue |
| **TOCDF** | **TO**oele **C**hemical **D**isposal **F**acility |
| **TSCA** | **T**oxic **S**ubstance **C**ontrol **A**ct |
| **TTX** | **T**able**T**op e**X**ercise |
| **TWA** | **T**ime **W**eighted **A**verage |
| **UMDA** | **UM**atilla **D**epot **A**ctivity |
| **UPS** | **U**ninterruptible **P**ower **S**upply |
| **USACBDC** | **US A**rmy **C**hemical and **B**iological **D**efense **C**ommand |
| **USACDRA** | **US A**rmy **C**hemical **D**emilitarization and **R**emediation **A**ctivity |
| **USACE** | **US A**rmy **C**orps of **E**ngineers |
| **USACHPPM** | **US A**rmy **C**enter for **H**ealth **P**romotion and **P**reventive **M**edicine |
| **USACMDA** | **US A**rmy **C**hemical **M**ateriel **D**estruction **A**gency |
| **USADACS** | **US A**rmy **D**efense **A**mmunition **C**enter and **S**chool |
| **USANCA** | **US A**rmy **N**uclear and **C**hemical **A**gency |
| **USCG** | **U**nited **S**tates **C**oast **G**uard |
| **USGS** | **U**nited **S**tates **G**eological **S**urvey |

# GLOSSARY

## *1% lethality dosage*

Maximum dosage at which a healthy adult exposed has a 1% chance of dying.

**See also: dosage, no deaths dosage, no effects dosage**

## *absorption*

The penetration of a substance into or through another substance or medium. The uptake and entry of a substance through intact skin, eyes, or linings of the body (i.e., ingestion or once the substance has entered the lungs).

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: adsorption**

## *access*

Close physical proximity to a chemical agent, container, or munition under circumstances that could provide an opportunity to acquire, release, tamper with, damage, or come in direct contact with the chemical agent.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

## *access control*

All activities accomplished for the purpose of controlling entry of persons into a restricted area (i.e., preventing the public from entering an accident site, sheltered or evacuated areas and permitting emergency workers with essential missions to enter the area).

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

The prevention of unauthorized entry into a specific area by using road barriers and traffic control. The access-controlled area may be established to control and monitor a restricted area that may have undergone agent contamination.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: access**

## *access control point*

A location staffed to restrict the entry of unauthorized personnel into a risk area. Access control is normally performed just outside of the risk area. It involves the deployment of vehicles, barricades, or other measures to deny access to a particular area.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: access, traffic control point**

## *accident assessment*

The evaluation of the nature, severity, and impact of an accident. In CSEPP, the Army will be primarily responsible for accident assessment.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: preliminary assessment**

## *accountability*

The obligation to keep accurate records of property, documents, or funds. Accountability is concerned primarily with records and does not necessarily imply actual possession.

**See also: custody**

## *action level*

A concentration designated in Title 29, Code of Federal Regulations, Part 1910 (29 CFR 1910) for a specific substance, calculated as an 8-hour time-weighted average, which initiates certain

required activities such as exposure monitoring and medical surveillance. [Note: For many substances the action level is one-half the permissible exposure limit (PEL).]

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: permissible exposure limit, short-term public emergency guidance level**

### *action log*

A record of actions taken by an agency during an emergency response.

### *activation*

A process by which a facility is brought up to emergency mode from a normal mode of operation. Activation is complete when the facility is usable for emergency response operations.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *activity*

A related set of chemical agent operations performed onpost. Information on the activity is expected to be transferred periodically to offpost agencies in a work plan. For example, the operation of maintenance could include activities such as load, transport, and inspect.

**See also: daily work plan**

### *adsorption*

The adhesion of a substance to the surface of another solid or liquid (not to be confused with absorption).

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: absorption**

### *adverse effect*

A biochemical change, functional impairment, or pathological lesion that impairs performance and reduces the ability of the organism to respond to additional challenges.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *adverse effect level (AEL)*

An exposure level at which there are statistically or biologically significant increases in frequency or severity of deleterious effects between the exposed population and its appropriate control group.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: adverse effect**

### *aerosol*

Airborne solid or liquid substances classified as dusts, fumes, smokes, mists, and fogs according to their physical nature, particle size, and method of generation. Particle size may vary from 100 micrometers (μm) to 0.01 μm in diameter.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: liquid droplets, vapor**

### *agent area*

A physical location where entry and exit are restricted and controlled; where agents are manufactured, processed, packaged, repackaged, demilitarized, released, handled, stored, used, or disposed of.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: restricted area or zone**

### *agent operating area*

That portion of the agent area where workers are actively conducting agent operations.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: agent area**

### *airborne exposure limits (AEL)*

Allowable concentrations in the air for occupational and general population exposures.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: ceiling limit, permissible exposure limit, threshold limit value**

### *alert*

Stimulation of one or more of the senses, usually those of hearing and/or sight.

**Source:** Jacobs Engineering Group. *Emergency Response Concept Plan for the Chemical Stockpile Disposal Program*. Jacobs Engineering Group, 1987.

**See also: notification**

### *alerting of personnel*

Personnel are notified through transmission of a signal or message via telephone, radio, or other means of a possible chemical accident or incident that requires that they report or may have to report for emergency duty.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: alert**

### *antidote*

A remedy to counteract the effects of agent. The Mark I Nerve Agent Antidote Kit (NAAK) contains an injectable drug to counteract the effects of nerve agent exposure. Injections may be

repeated at 5- to 20- minute intervals until three injections are given without the advice of a physician.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

Any substance or other agent that inhibits or counteracts the effects of a poison.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: chemical-unique materials**

## *applicable requirements (from the National Contingency Plan)*

Those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstances at a CAI site.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

## *Army protective action recommendation*

Protective action recommendation provided by the Army to an organization legally responsible for making a protective action decision. A PAR associated with the current work plan is expected to be provided by the chemical stockpile installation to the offpost emergency management organizations. A PAR is also expected to be provided by the chemical stockpile installation during a response to a chemical accident or incident.

**See also: protective action decision-making, protective action recommendation**

## *atmospheric stability (low level)*

This is a relative classification of the mixing of the air near the surface. This mixing has been measured as a standard deviation of wind direction changes or, in a more direct way, as the difference in air temperature at two reference heights (temperature gradient between 1/2 and 4 meters). Low stability is associated with smaller downwind hazard distances.

**Source:** Whitacre, C. Glenvil, et. al. *Personal Computer Program for Chemical Hazard Prediction (D2PC)*. Chemical Research, Development and Engineering Center, 1987.

**See also: Pasquill stability**

### *augmentation force*

Additional personnel (or units) organized, trained, armed, equipped, and capable of assisting initial forces as required.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *backup communications system*

The communications system used when the primary system is incapable of handling traffic or is inoperative.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: communications system, primary communications system**

### *baseline*

The original plan or design, plus or minus changes made as a result of changes in scope. It is the standard against which performance is judged.

### *blister agent*

A chemical (such as sulfur mustard) that produces local irritation and damage to the skin and mucous membranes that progresses in severity to fluid-filled blisters on skin. This chemical can cause damage by exposure to liquid or vapor inhalation (IH). It can also produce damage to the respiratory tract.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: nerve agent, vesicant agent**

### *buddy-aid*

For nerve agent, the administration of a chemical agent antidote to a person exhibiting symptoms of severe nerve agent poisoning when that person is unable to administer self-aid. For all agents, the removal of gross contamination from a person, when they are unable to remove the agent themselves.

**See also: antidote, decontamination, self-aid**

### *buffer zone*

As used by the Federal Emergency Management Agency (FEMA) and the US Environmental Protection Agency (USEPA), an area adjacent to a restricted zone which residents may return to, but where protective measures are recommended to reduce dose or exposure.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *casualty*

Any person who is lost to the organization by reason of having been declared dead, wounded, injured, diseased, interned, captured, retained, missing, missing in action, beleaguered, besieged, or detained.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *ceiling limit*

An airborne concentration of a substance that should not be exceeded.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: airborne exposure limit, permissible exposure limit, threshold limit value**

### *ceiling value*

Normally refers to the maximum exposure concentration at any time, for any duration. Practically, it may be an average value over the minimum time required to detect the specified concentration.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *certifying official*

For military and Department of the Army (DA) civilian personnel, the immediate commander (or, if civil service, the director) who is responsible for the operation or security, or both, of chemical weapons or materiel. If the commander or director is a colonel or a GM/GS-15, or above, he or she may delegate subordinates to act as organization-certifying officials. Such designees should be supervisors who can feasibly maintain sufficient contact to continually evaluate personnel. For Army contractor personnel, the Army official so designated in the

contract is the certifying official. The certifying official validates that personnel considered for assignment to chemical surety duties meet the qualification requirements of the Chemical Personnel Reliability Program.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: chemical surety, personnel reliability program**

## *$ChE_{50}$*

The dosage producing 50 percent cholinesterase (ChE) inhibition in the given population. (Note that the $ChE_{50}$ is not a dosage that produces this effect in 50 percent of the given population.)

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: dosage, cholinesterase**

## *chemical accident/incident (CAI)*

Chemical events involving chemical surety materiel. A chemical accident refers to a chemical event resulting from nondeliberate acts where safety is of primary concern. A chemical incident refers to a chemical event resulting from deliberate acts (terrorism or criminal), where security is of concern.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

## *Chemical Accident/Incident Response and Assistance (CAIRA) Plan*

A federal plan that defines the federal response at an Army installation which is the emergency response to and recovery from a chemical event. This plan must be coordinated carefully with local and state plans.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

## *chemical agent*

A chemical substance intended for use in military operations to kill, seriously injure, or incapacitate people through its physiological effects. Included are blood, nerve, choking, blister,

and incapacitating agents. Excluded are riot control agents, chemical herbicides, and smoke and flame materials.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *chemical agent casualty*

A person who has been affected sufficiently by a chemical agent to prevent or seriously degrade the ability to function normally.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

An individual who has been affected sufficiently by a chemical agent to prevent or seriously degrade his or her ability to carry out the mission.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *chemical agent monitor (CAM)*

This item is used to detect chemical agent vapors and provide a readout of the relative concentration of the vapor present.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *chemical event*

A term that applies to the following: a. Chemical agent leaks of munitions in the chemical agent stockpile. b. Discovery of an actual or suspected chemical agent munition or container that may require emergency transportation and/or disposal. c. Any release of chemical agent to the environment outside of closed systems, facilities, or devices greater than established US Army Surgeon General 8-hour time weighted average Airborne Exposure Limits, or release resulting in personnel exhibiting clinical signs or symptoms of chemical agent exposure. d. Any exposure or release of agent that does not exceed established US Army Surgeon General Airborne Exposure Limits, but nonetheless is receiving media attention. e. Any deliberate release of chemical agent resulting from a terrorist or criminal act. f. Loss of chemical surety materiel (other than deliberate destruction by approved, authorized laboratory and demilitarization processes, including training expenditures).

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *chemical event emergency notification system*

A joint (depot/offpost) system of emergency notification of chemical events for offpost response. If a release of chemical agents happens, immediate action must be taken to notify and protect personnel in the predicted hazard area. The criteria to make notification will be based on predicted dosage and distances. The predicted downwind distance of the chemical agent no-effect dosage will be the specific criteria used. The system consists of a minimum of three surety emergency levels and one nonsurety event level. For emergency response purposes these levels will be identified as nonsurety emergency, limited area emergency, post only emergency, and community emergency.

**Adapted from:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: chemical event notification level, notification, protective action decision-making**

### *chemical event notification level*

One of four levels used to communicate the extent of a chemical accident or incident from onpost to offpost authorities. The four levels are: non-surety emergency, limited area emergency, post only emergency, and community emergency.

### *Chemical Hazard Warning System (CHAWS)*

An electronic system for retrieving meteorological data from remote sensors.

**See also: Handar, meteorological tower**

### *chemical limited area or limited area*

The area immediately surrounding one or more exclusion areas. Normally, the area between the boundaries of the exclusion areas and the perimeter boundary.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *chemical operation*

A specific action performed on the chemical stockpile. Each operation has an associated set of accidents or incidents that are considered feasible. Several operations constitute one chemical activity. A chemical operation can be described by the following characteristics (this is not an exhaustive list): name of agent, munition, and quantity of agent/munitions involved. Specific

instances of chemical operations may include information on start/end times, location of operation, number of workers involved, and related accidents or incidents.

**See also: activity, daily work plan**

### *chemical stockpile*

Unitary chemical weapons stored by the US Army at eight storage sites in the continental US and at Johnston Atoll in the Pacific Ocean.

### *Chemical Stockpile Disposal Program (CSDP)*

The congressionally mandated program that requires the Army to dispose of all its unitary chemical agents. The preferred mode of disposition is onpost incineration.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *Chemical Stockpile Emergency Preparedness Program (CSEPP)*

A joint DA/FEMA program to oversee and assist in the development of adequate emergency response plans and capabilities for all jurisdictions that might be affected by a chemical release associated with CSDP activities.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *chemical surety*

Those controls, procedures, and actions that contribute to the safety, security, and reliability of chemical agents and their associated weapon systems throughout their life cycle without degrading operational performance.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *chemical surety materiel*

Chemical agents and their associated weapons systems, or storage and shipping containers that are either adopted or being considered for military use.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

All lethal and incapacitating chemical agents and their related weapon systems, including binary munitions and their critical components, that are either adopted or considered for military use. Excluded are riot control agents, defoliants, incendiaries, smoke, and flame.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *chemical-unique materials*

Those specific materials and equipment which would be required primarily in response to a chemical accident or incident, such as antidotes to chemical agents and decontamination chemicals.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: decontamination**

### *cholinesterase (ChE)*

An enzyme that catalyzes the hydrolysis of acetocholine to choline (a vitamin) and acetic acid.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *command and control*

Management of emergency functions through leadership and use of authority.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *communication system*

The assemblage of personnel and equipment, including, but not limited to, radio, telephone, and facsimile communication machines.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *community emergency*

Events are likely to occur or have occurred that involve agent release with chemical effects beyond the installation boundary. This level will be declared when the predicted chemical agent no effects dosage extends beyond the installation boundary.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: chemical event notification level, limited area emergency, non-surety emergency, post only emergency**

### *Comprehensive Cooperative Agreement (CCA)*

An agreement whereby FEMA provides funds and technical assistance; in return, the State accomplishes mutually negotiated and agreed-upon work objectives. The CCA is the primary mechanism for delivering FEMA-supported resources to States.

**Source:** Federal Emergency Management Agency. *A Federal Emergency Management Agency Guide to the Comprehensive Cooperation Agreement*. FEMA, 1991.

### *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*

A law that deals with hazardous substance releases into the environment and the cleanup of hazardous waste sites. This act was amended by SARA in 1986.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *Computer-Aided Management of Emergency Operations (CAMEO)*

A public-domain decision support software system developed by the National Oceanic and Atmospheric Administration (NOAA) specifically for use by fire departments. CAMEO has telecommunications and air diffusion modeling capabilities. It also contains Material Safety Data Sheets for 2629 substances.

**Source:** Feldman, D. and Dobson, J. *Decision Making Technical Support for the US Army's Chemical Stockpile Disposal Program: Enhancing Command, Control, and Computer Operations at Aberdeen Proving Ground and Pine Bluff Arsenal*. Oak Ridge National Laboratory, 1990.

### *concentration*

This is the quantity of a vapor or aerosol suspended in a volume of air.

**Source:** Whitacre, C. Glenvil, et. al. *Personal Computer Program for Chemical Hazard Prediction (D2PC)*. Chemical Research, Development and Engineering Center, 1987.

**See also: dosage, dose**

### *concept of operations*

Describes the system of personnel, facilities, and communications through which jurisdictions or installations are able to plan, manage, and exercise to meet emergency management goals. It lists the major players involved, the relationship of the players to each other, and the responsibilities assigned to each player under each emergency management phase. It is important to specify whether the coordination of various players is through direct control by a specific agency, through Mutual Aid Agreements, or through legislative or administrative rules. The concept of operations should include a broad concept of how operations will be managed, resourced, and conducted. For example, the Army's system is organized along the principles of centralized control and decentralized execution.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *congregate care facility*

A facility for providing emergency lodging and care for people made temporarily homeless by an emergency.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *contaminated persons*

Persons who have chemical agent on themselves or their clothing.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *contamination*

Any deposit, adsorption, or absorption of radioactive, biological, or chemical substances on and by structures, areas, personnel, objects, soil, and water. Food and/or water made unfit for human or animal consumption by the presence of radioactive, biological, or chemical substances.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *coordination*

Active involvement of staff and response agencies in decision-making to integrate available resources and implement the CSEPP response plans.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *CSEPP Exercise Objectives*

Standard objectives for planning and evaluating each CSEPP exercise.

**Source:** Oak Ridge National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises*. ORNL, 1994.

**See also: CSEPP Exercise Points of Review**

### *CSEPP Exercise Points of Review*

Standard objectives are used in planning and evaluating each CSEPP exercise. A series of questions, or Points of Review (PORs), has been prepared for each objective to aid in collecting the data needed to determine if each objective was successfully demonstrated in an exercise.

**Source:** Oak Ridge National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises*. ORNL, 1994.

**See also: CSEPP Exercise Objectives**

## *CSEPP Memorandum of Understanding*

The written agreement (August 1988) whereby the Army and Federal Emergency Management Agency have agreed to collaborate on the emergency preparedness aspects of the Chemical Stockpile Disposal Program.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: memorandum of understanding**

## *CSEPP Organization*

Army, state, county, or local agencies directly responsible for protecting life and property from the effects of a chemical accident or incident involving the US stockpile of unitary chemical weapons.

## *CSEPP site*

The jurisdictions comprising an Army chemical stockpile installation where chemical stockpile munitions are stored, the surrounding counties and cities within the immediate response and protective action zones, and any states which include all or part of the emergency planning zones.

## *CSEPP site personnel*

Emergency management and other personnel involved in planning for and response to chemical accidents or incidents at a CSEPP site.

## *custody*

Responsibility for the control, transfer, and movement of, and access to, chemical surety materiel. Custody may or may not include accountability.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: accountability**

## *D2PC*

A dispersion model developed by the Army to estimate downwind hazard distances from releases of chemical agents.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

## *daily work plan*

A list of planned activities dealing with chemical weapons. These activities will be carried out by the Army chemical stockpile installation or chemical demilitarization facility. Information contained in the daily work plan is expected to include: description of the activity, agent and munition involved, number of persons in the work team, and the start and stop time.

## *deadly force*

That force a person uses with the purpose of causing, or which the person knows, or should know, will create a substantial risk of causing death or serious bodily harm.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

## *decision matrix*

A device designed to organize protective action strategies using such factors as release characteristics, meteorological conditions, population characteristics, and affected geographic areas.

**Source:** Oak Ridge National Laboratory. *Functional Requirements for the Chemical Stockpile Emergency Preparedness Program Automated Emergency Management Information System*. ORNL, 1992.

**See also: protective action, scenario table**

## *decontamination*

The process of decreasing the amount of chemical agent on any person, object, or area by absorbing, neutralizing, destroying, ventilating, or removing chemical agents.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

Decreasing the amount of chemical agent on any person, object, or area by absorbing, neutralizing, destroying, ventilating, or moving chemical agents. Decontamination procedures are critical during:

a) Response phase, to eliminate direct and immediate threats to human life.

b) Recovery phase, to eliminate indirect and less immediate threats to human life (such as cross-contamination).

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: contamination**

### *demilitarization*

The mutilation, destruction, or neutralization of chemical surety materiel, rendering it harmless and ineffectual for military purposes.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *dermal exposure*

Exposure to or by absorption through the skin.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: percutaneous exposure**

### *detection*

Discovery of the presence of a chemical agent.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: monitoring, sampling**

### *detection limit*

Analytical capability based on the amount of the sample and the sensitivity of the analytical method.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *dilute solutions*

Chemical agents that have been reduced in strength (less than neat) by admixture (dilution).

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: RDTE dilute solution**

### *direction and control*

**See: command and control**.

### *direction and control exercise (DCX)*

An activity in which emergency preparedness officials respond to a simulated incident. It mobilizes emergency management and communications organizations and officials. Some field response organizations may be involved.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: full-scale exercise, Service Response Force Exercise, tabletop exercise**

### *disabled persons*

Individuals who, due to a physical or mental impairment, may require assistance with protective actions. For example, residents who are blind, non-ambulatory, frail, or dependent on life-support systems may require assistance from others (and special equipment) in order to evacuate.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: special populations**

### *disaster*

An occurrence of a severity and magnitude that normally results in deaths, injuries, and property damage and that cannot be managed through the routine procedures and resources of government. It usually develops suddenly and unexpectedly and requires immediate, coordinated, and effective response by multiple government and private sector organizations to meet human needs and speed recovery.

**Source:** Federal Emergency Management Agency. *Objectives for Local Emergency Management*. FEMA Civil Preparedness Guide 1-8, 1984.

**See also: emergency**

### *discrete receptor*

A location of specific interest for dispersion modeling.

### *Doctrine, Training, Leader Development Organizations and Materiel (DTLOM)*

DTLOM (sometimes referred to DTLOMS) is the basis for the Army's Concept Based Requirement System (CBRS). The use of the DTLOM acronym is an indication that developers of new requirements are exploring the entire gamut of DTLOM as they affect soldiers. The CSEPP program has adopted DTLOM as a convient acronym to evaluate CSEPP requirements.

### *dosage*

Dosage is the integration of concentration in $mg/m^3$ and time in minutes, also referred to as Ct. This is a mathematical concept that makes a useful exposure index to vapors and small aerosols that can be absorbed by inhalation. When the dosage is multiplied by a breathing rate and retention efficiency, the result is an inhaled dose.

**Source:** Whitacre, C. Glenvil, et. al. *Personal Computer Program for Chemical Hazard Prediction (D2PC)*. Chemical Research, Development and Engineering Center, 1987.

The amount of substance administered (or received) per body weight.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: dose, mg-min/$m^3$, concentration, time-weighted average**

## *dose*

Dose is the quantity of a substance ingested into the body or placed on the body surface or clothing.

**Source:** Whitacre, C. Glenvil, et. al. *Personal Computer Program for Chemical Hazard Prediction (D2PC)*. Chemical Research, Development and Engineering Center, 1987.

The amount of agent or energy that is taken into or absorbed by the body; the amount of substance, radiation, or energy absorbed in a unit volume, an organ, or an individual.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: dosage, percutaneous exposure**

## *dry deposition*

The process of removal of chemicals from the atmosphere by the deposition of chemicals on the ground, vegetation, or other surfaces. In essence, the particle or gas molecule hits the surface and sticks for a time period.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

Deposition onto surfaces by settling out of particles, as opposed to droplets (liquid); also by absorption from the vapor phase.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: wet deposition**

## *electronic plan*

An emergency operating procedure in electronic format.

## *emergency*

A disaster occurance or a situation which seriously threatens loss of life and damage to property. It usually develops suddenly and unexpectedly and demands immediate, coordinated, and

effective response by government and private sector organizations to protect lives and limit damage to property.

**Source:** Federal Emergency Management Agency. *Objectives for Local Emergency Management,* Civil Preparedness Guide 1-5, FEMA, 1984.

**See also: disaster**

## *Emergency Alert System (EAS)*

A proposed replacement for the emergency broadcast system, which will include more means of communication, improved technology, and streamlined procedures.

**Source:** Emergency Communications Administration, Federal Communications Commission. *Report and Further Notice of Proposed Rule Making: Amendment of Part 73, Subpart G of the Commission's Rules Regarding the Emergency Broadcast System, FCC 94-288*. Federal Communications Commission, 1994.

**See also: alert, Emergency Broadcast System**

## *Emergency Broadcast System (EBS)*

A federally established network of commercial radio stations that voluntarily provide official emergency instructions or directions to the public during an emergency. Priorities for EBS activation and use are: (1) federal government, (2) local government, and (3) state government. For CSEPP the EBS will provide supplementary alert and notification for the IRZ.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: alert, Emergency Alert System**

## *emergency disposal*

Immediate transportation and disposal of chemical agents or munitions when the senior explosive ordnance disposal person determines the health or safety of any person is clearly endangered. Emergency disposal operations may be conducted free of the prior approval restrictions imposed by Public Laws 91-120, 91-121, 91-441, and AR 50-6.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

## *emergency exposure guidance level (EEGL)*

A concentration of substance in air (as a gas, vapor, or aerosol) that will permit continued performance of specific tasks during rare emergency conditions, lasting for periods of 1 to 24 hours. This should not be used for planned exposures because EEGLs are neither safe nor hygienic.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

## *emergency facility*

Any building, center, room, or set of rooms or mobile units that have been designed and equipped to support emergency operations (e.g., Emergency Operating Center (EOC)).

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: facility, special facility**

## *emergency information*

Material designed to improve knowledge or understanding of an emergency.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

## *emergency instructions*

Instructions for protective actions that should be taken in an emergency.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: notification, protective action decision**

## *Emergency Management Information System (EMIS)*

A software system designed for onpost use in the CSEPP. The EMIS was developed by Oak Ridge National Laboratory and Applied Computing Systems, Inc., and includes hazard prediction, mapping, database, status board, and communications functions.

**See also: Federal Emergency Management Information System, Integrated Baseline System**

## *emergency operating center (EOC)*

The location or facility where responsible officials gather during an emergency to direct and coordinate emergency operations, to communicate with other jurisdictions and with field emergency forces, and to formulate protective action decisions.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

## *emergency operations plan (EOP)*

An EOP is a document that contains information on actions that may be taken by a governmental jurisdiction to protect people and property in a disaster or disaster-threat situation. It describes actions that may be required for any hazard, natural or technological, including the effects of nuclear war. It details the tasks that are to be carried out by specified organizational elements at projected places and times based on established objectives, assumptions, and a realistic assessment of capabilities.

**Source:** Federal Emergency Management Agency. *Guide for the Development of State and Local Emergency Operations Plans*. FEMA Civil Preparedness Guide 1-8, 1990.

## *emergency phase*

As used by the FEMA and the USEPA, the initial phase of response actions, during which actions are taken in response to a threat of release or a release in progress. Short-term protective actions, such as sheltering and evacuation, may be taken during this phase to mitigate the hazard from immediate exposure to the passing plume.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: phase, response**

### *emergency planning guide (EPG)*

A set of location-specific documents being developed to analyze the characteristics of each chemical agent stockpile location that are pertinent to emergency planning and to provide a step-by-step guide for preparing site-specific Protective Action Strategy Plans. The EPG will supersede the site-specific ERCPs.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: site-specific emergency response concept plan**

### *emergency planning zone (EPZ)*

A geographical area delineated around a potential hazard generator that defines the potential area of impact. Zones facilitate planning for the protection of people during an emergency.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *emergency preparedness plan*

**See: Emergency Operations Plan**.

### *emergency response concept plan (ERCP)*

The conceptual basis for developing local emergency response programs for the CSDP, developed as a supporting document to the "Final Programmatic Environmental Impact Statement."

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: site-specific emergency response concept plan**

### *emergency workers*

Personnel performing essential missions within the area potentially affected by the chemical agent to protect the health and safety of the public. The term is applicable to first responders to the chemical event site and others engaged in activities such as manning traffic control along evacuation routes, performing emergency medical services and decontamination, driving

evacuation and medical response vehicles, and performing fire and rescue activities, including route alerting.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *enhanced shelter-in-place*

A protective action that is similar to normal shelter-in-place except that it involves taking shelter in a structure to which weatherization techniques have been applied before the emergency to permanently reduce the rate at which air or chemical agent seeps into the structure. Effectiveness is improved by going into an interior room. The shelter should be opened up or abandoned after the toxic plume has passed.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: expedient shelter-in-place, normal shelter-in-place, pressurized shelter-in-place, shelter-in-place, specialized sheltering**

### *environment (from the National Contingency Plan)*

The navigable waters, the waters of the continuous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the United States under the Magnuson Fishery Conservation and Management Act; and any other surface water, ground water, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *essential functions*

Response activities crucial in a chemical event. They include communications, direction and control of operations, hazard assessment, reception and care of evacuees, and public information.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *evacuation*

A protective action that involves leaving an area of risk until the hazard has passed and the area is safe for return.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: protective action, shelter-in-place**

### *evacuees*

All persons leaving the installation and/or the IRZ/PAZ due to a chemical accident or incident.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: population at risk**

### *evaporation*

The change of a liquid into a gas at any temperature below its boiling point.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *exclusion area*

The area immediately surrounding one or more receptacles in which chemical agents are contained. Normally, the boundaries of an exclusion area are the walls, floor, and ceiling of a storage structure, secure container or a barrier that establishes the boundary (such as an igloo or a fence).

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

## *Executive Council*

A committee established by a DA/FEMA Joint Memorandum for the Record in February 1994. The Executive Council, which is made up of members from DA and FEMA, is the principal policy-setting and decision-making body for CSEPP.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

## *exercise scenario*

The exercise scenario includes the initiating event and the other key events that provide the framework for the exercise response to take place.

**Source:** Oak Ridge National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises*. ORNL, 1994.

## *expedient shelter-in-place*

A protective action that is similar to normal shelter-in-place except that, after going into the room selected as a shelter at the time of the emergency, the inhabitants take measures to reduce the rate at which air or chemical agent enters the room. Such measures would include taping around doors and windows and covering vents and electrical outlets with plastic. Effectiveness is improved if the room selected as a shelter
is an interior room. The shelter should be opened up or abandoned after the plume has passed.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: enhanced shelter-in-place, normal shelter-in-place, pressurized shelter-in-place, shelter-in-place, specialized sheltering**

## *explosive ordnance disposal (EOD)*

The detection, identification, field evaluations, rendering safe, recovery, and final disposal of unexploded explosive ordnance or chemical agent munitions.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *explosive ordnance disposal procedures*

Those particular courses or modes of action for access to, recovery, render safe, and final disposal of explosive ordnance or any hazardous materiel associated with an EOD incident.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *exposure*

The amount of chemical that enters the body by some route for a specified frequency and duration.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *exposure routes*

The major routes of exposure include ingestion, inhalation, and absorption through the skin.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *facility*

From the *National Contingency Plan*: Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located, but does not include any consumer product in consumer use or any vessel.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

A place built or set aside to provide a special service.

**Source:** Barnhart, Clarence L. and Barnhart, Robert K., eds. *The World Book Dictionary*. Doubleday, 1979.

**See also: institution**

### *feasibility study (from the National Contingency Plan)*

A study undertaken by the lead agency to develop and evaluate options for remedial action. The FS emphasizes data analysis and is generally performed concurrently and in an interactive fashion with the remedial investigation (RI), using data gathered during the RI. The RI data are used to define the objectives of the response action, to develop remedial action alternatives, and to undertake an initial screening and detailed analysis of the alternatives. The term also refers to a report that describes the results of the study.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: remedial investigation**

### *Federal Emergency Management Information System (FEMIS)*

A software system designed for both on- and offpost use for the CSEPP. The FEMIS was developed by Battelle Pacific Northwest National Laboratories. It includes hazard and evacuation models, and a geographic information system. It also includes planning, database, status board, and communications functions.

**See also: Emergency Management Information System, Integrated Baseline System**

### *first aid*

Any one-time treatment, and any follow-up visit for the observation of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care. Such one-time treatment, and follow-up visit for observation, or the use of (up to three) atropine sulfate auto-injectors (MK-1 nerve agent antidote kit), is considered first aid, even though provided by a physician or registered medical professional personnel.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: antidote, medical response team**

### *first Federal official (from the National Contingency Plan)*

The first Federal representative of a participating agency of the National Response Team to arrive at the scene of a discharge or a release. This official coordinates activities under the NCP and may initiate, in consultation with the OSC, any necessary actions until the arrival of the

predesignated OSC. A state with primary jurisdiction over a site covered by a cooperative agreement will act in the stead of the first Federal official for any incident at the site.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: on-scene coordinator**

### *first responder*

The first emergency responders to arrive on the scene of an emergency.

### *full-scale exercise (FSX)*

An activity in which emergency preparedness officials respond to a simulated incident. It mobilizes the entire emergency organization or its major parts.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: direction and control exercise, Service Response Force Exercise, tabletop exercise**

### *fully operational organization*

An organization that has completed the mobilization process required by scenario events and the organization's emergency plans and procedures for specific duty stations.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: activation, mobilize**

### *fully participating organization*

An organization that will fully activate and mobilize all emergency response personnel as needed during an exercise.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: activation, mobilize, partially participating organization**

## *GA (Tabun)*

The chemical Ethyl N, N-dimethylphosphoramidocyanidate, Chemical Abstract Service (CAS) registry number 77-81-6, in pure form and in the various impure forms found in storage as well as in industrial, depot, or laboratory operations (Tabun). Agent GA is a nerve agent.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: nerve agent**

## *Gantt chart*

A graphic presentation of project activities shown by a time-scaled bar line.

**Source:** Humphreys, Kenneth K. and Lloyd M. English. *Project and Cost Engineers' Handbook, third ed*. Marcel Dekker, Inc., 1993.

**See also: program evaluation and review technique chart**

## *GB (Sarin)*

The chemical Isopropyl methylphosphonofluoridate, CAS registry number 107-44-8, in pure form and in the various impure forms found in storage as well as in industrial, depot, or laboratory operations (Sarin). Agent GB is a nerve agent.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: nerve agent**

## *GD (Soman)*

The chemical Pinacolyl methyl phosphonofluoridate, methyl-1, 2, 2-trimethylpropyl ester, CAS registry number 96-64-0, in pure form and in the various impure forms found in storage as well as in industrial, depot, or laboratory operations (Soman). Agent GD is a nerve agent.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: nerve agent**

## *guidance*

Information necessary or helpful for the successful completion of a task.

## *H*

Levinstein mustard, CAS registry number 471-03-4. A mixture of 70 percent bis (2-chloroethyl) sulfide and 30 percent sulfur impurities produced by the Levinstein process. Agent H is a vesicant agent.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: vesicant agent**

## *Handar*

An electronic system for retrieving meteorological data from remote sensors, developed by Handar, Inc.

**See also: chemical hazard warning system, meteorological tower**

## *hazard*

A chemical or physical condition that has the potential for causing damage to people, property, or the environment.

**Source:** Center for Chemical Process Safety. *Guidelines for Chemical Process Quantitative Risk Analysis*. American Institute of Chemical Engineers, 1989.

## *hazard analysis*

Identifying the potential hazards associated with, or inherent in, a given process. Qualitative hazard analysis considers events independent of their probability of occurrence. Quantitative hazard analysis considers the relative probability of different catastrophic events.

**Source:** Greenberg, Harris R. and Cramer, Joseph J. *Risk Assessment and Risk Management for the Chemical Process Industry*. Van Nostrand Reinhold, 1991.

**See also: hazard vulnerability analysis, risk analysis**

### *hazard probability*

The likelihood that an accident will occur. It is based on an assessment of such factors as location, exposure frequency and duration, and affected population.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *hazard severity*

An assessment of the worst potential consequence (i.e., degree of bodily injury, occupational illness, health-related performance degradation, or bodily system damage which could occur) prior to implementing recommendations to eliminate or minimize the hazard.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: hazard**

### *hazard vulnerability analysis (HVA)*

A document which identifies how people, property, and structures might be damaged by a disastrous event. A hazard vulnerability analysis considers consequences, where a hazard analysis does not.

**Source:** Federal Emergency Management Agency. *Emergency Program Manager: An Orientation to the Position*. FEMA, 1983.

**See also: hazard analysis**

### *hazardous material*

Any substance that has been determined by the Occupational Safety and Health Administration (OSHA) as having the potential to cause a physical or health hazard. This is based on its potential for burning, exploding, or otherwise causing an injury to workers or the likelihood that exposure will result in acute or chronic health effects among employees.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *HD*

Distilled mustard or bis (2-chloroethyl) sulfide, CAS registry number 505-60-2. Distilled mustard (HD) is mustard (H) that has been purified by washing and vacuum distillation to reduce sulfur impurities. Agent HD is a vesicant agent.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: vesicant agent**

### *hot line*

A line on the ground, upwind of a CAI site, which separates a contaminated area from the contamination-free area, and is used to control entry and egress of personnel to and from the CAI site.

### *HT*

A plant-run mixture of 60 percent HD and 40 percent T plus a variety of sulfur contaminants and impurities. T is bis [2- (2-chloroethylthio) ethyl] ether, CAS registry number 63918-89-8. T is a sulfur, oxygen, and chlorine compound similar in structure to HD. Agent HT is a vesicant agent.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: vesicant agent**

### *igloo*

A reinforced concrete, earth-covered shelter used for storing explosives and munitions.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *Immediate Response Zone (IRZ)*

The planning zone immediately surrounding each Army installation. Generally it extends to about 10 km (6 miles) from the installation's chemical storage area. At some installations, it extends to about 15 km (9 miles).

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: emergency planning zone, protective action zone, precautionary zone**

### *immediately dangerous to life or health (IDLH)*

The maximum concentration from which, in the event of respiratory failure, one could escape within 30 minutes without a respirator and without experiencing any escape-impairing (for example, severe eye irritation) or irreversible health effects [(Department of Health and Human Services, National Institute for Occupational Safety and Health (DHHS NIOSH) Publication No. 90-117]. [Respiratory protection and sufficient oxygen to support life (at least 16 percent by volume) are addressed in 29 CFR 1910.134 e(3) and g(5).]

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *impact time*

The time at which an area is first affected by a chemical agent release.

### *implementing procedure (IP)*

A planned sequence of tasks to be performed by emergency personnel in an emergency. Implementing procedures are generally organized by position.

**See also: electronic plan**

### *incapacitating dose*

The concentration/dose that renders an individual unable to perform normal activities or tasks.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: dose**

### *incapacitation*

Considered to be "moderate-to-severe"–unless otherwise specified. It may include prostration and convulsions.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

## *Incident Command System (ICS)*

The combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure with responsibility for the management of assigned resources to effectively accomplish stated objectives pertaining to an incident.

**Source:** Federal Emergency Management Agency. *Exemplary Practices in Emergency Management: The California Firescope Program*. FEMA, 1987.

## *industrial chemicals*

Chemicals developed or manufactured for use in industrial operations or research, by industry, Government, or the academia. These chemicals are not primarily manufactured for the specific purpose of producing human casualties or rendering equipment, facilities, or areas dangerous for use by man.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

## *ingestion hazard projections*

Projections of hazard to the public from ingesting chemical agents released as the result of a chemical event in the absence of protective actions which occur over a period of time.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: dosage**

## *Initial Response Force (IRF)*

An emergency action organization tasked to provide first response to a CAI at an installation assigned a chemical surety mission. Under the command of the installation commander, the IRF is composed of command and control elements and emergency teams capable of providing emergency medical services and initiating those actions necessary to prevent, minimize, or mitigate hazards to public health and safety or to the environment. Depending on the severity of the CAI, the IRF is capable of initiating environmental restoration activities for completion under the installation restoration program.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

The installation commander and staff who, during the initial period of the emergency, will take emergency response actions necessary to maintain command and control on-site pending arrival of the service response force.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: command and control, service response force**

## *institution*

A facility such as a nursing home, hospital, or prison where the residents may require special assistance or security in order to implement protective actions.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: facility**

## *institutional population*

People in schools, hospitals, nursing homes, prisons or other facilities that require special care or consideration by virtue of their dependency on others for appropriate protection.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: special populations**

## *institutionalized persons*

Individuals who reside in institutions such as nursing homes or prisons and may need to depend on others for assistance with protective actions. Institutionalized persons may or may not have special needs.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: special populations**

### *Integrated Baseline System (IBS)*

A software system designed for offpost use in the CSEPP. The IBS was developed by Battelle Pacific Northwest National Laboratories. It includes hazard and evacuation models and database, mapping, planning, and communications functions.

**See also: Emergency Management Information System, Federal Emergency Management Information System**

### *Intergovernmental Consultation And Coordination Boards (ICCBs)*

The national and local boards composed of federal, state, and local members that provide for information transfer in the Chemical Stockpile Disposal Program.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *Joint Information Bureau (JIB)*

**See: joint information center**.

### *Joint Information Center (JIC)*

A single location where onpost and offpost public information officials gather to collaborate on and coordinate the release of emergency public information. Ideally, the JIC should be located outside of the IRZ.

**Adapted from:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: media center**

### *joint information system*

Similar to the joint information center, a joint information system need have no physical facility. Communications are handled by telephone, fax, amateur radio, or other electronic means.

### *Joint Public Information Center (JPIC)*

**See: joint information center**.

### *jurisdiction*

The territory over which authority extends.

**Source:** Barnhart, Clarence L. and Robert K. Barnhart, eds. *The World Book Dictionary*. Doubleday, 1979.

### *key response staff*

Those emergency personnel necessary to carry out essential functions in a chemical event.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *L (Lewisite)*

A brown or colorless liquid that is part of the chemical stockpile of vesicants.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: vesicant agent**

### *lead agency (from the National Contingency Plan)*

Agency that provides the OSC/RPM to plan and implement response action under the NCP. EPA, the USCG, another Federal agency, or a State (or political subdivision of a State) operating under a contract or cooperative agreement executed by section 104(d)(1) of CERCLA, or designated a Superfund Memorandum of Agreement entered into under Subpart F of the NCP or other agreements may be the lead agency for a response action. In the case of a release of a hazardous substance, pollutant, or contaminant, where the release is on, or the sole source of the release is from, any facility or vessel under the jurisdiction, custody, or control of DOD or DOE, then DOD or DOE will be the lead agency. Where the release is on, or the sole source of the release is from, any facility or vessel under the jurisdiction, custody, or control of a Federal agency other than EPA, the USCG, DOD, or DOE, then that agency will be the lead agency for remedial actions and removal actions other than emergencies. The Federal agency maintains its lead agency responsibilities whether the remedy is selected by the Federal agency for non-NPL sites or by EPA and the Federal agency or by EPA alone under CERCLA section 120. The lead agency will consult with the support agency, if one exists, throughout the response process.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *limited area emergency*

Events are likely to occur or have occurred that involve agent release outside engineering controls or approved chemical storage facilities with chemical effects expected to be confined to the chemical limited area. This level will be declared when the predicted chemical agent no effects dosage does not extend beyond the chemical limited area where the event occurred.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: chemical event notification level, chemical limited area, community emergency, non-surety emergency, post only emergency**

### *liquid droplets*

Agent particles that are larger than aerosol particles; specifically, over 20 microns in diameter.

**See also: aerosol, vapor**

### *Local Emergency Planning Committee (LEPC)*

The planning body designated by Superfund Amendments and Reauthorization Act, Title HI legislation as the planning body for preparing local hazardous materials plans.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: National Response Team, Regional Response Team, State Emergency Response Commission**

### *lowest-effect level (LEL)*

The lowest exposure level at which there are statistically or biologically significant increases in frequency or severity effects between the exposed population and its appropriate control group.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: no-observed effects level**

### *lowest-observed adverse effect level (LOAEL)*

The lowest exposure level at which there are statistically or biologically significant increases in frequency or severity of adverse effects between the exposed population and its appropriate control group.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: adverse effect, no-observed adverse effects level**

### *mass care center*

A facility for providing emergency lodging and care for people made temporarily homeless by an emergency. Essential basic services (feeding, family reunification, etc.) are provided.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: facility, reception center**

### *Master Scenario Event List (MSEL)*

The MSEL consists of a listing of the events or actions which are introduced by controllers into player channels as play during the exercise as well as key expected player actions (which are clearly identified as such). The events injected by controllers are developed by the scenario work group members and are used to add realism to the play by allowing players to implement specific policies, procedures, or systems. The MSEL events ensure that the exercise allows demonstration of the objectives identified.

**Source:** Oak Ridge National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises*. ORNL, 1994.

**See also: exercise scenario**

### *maximum credible event (MCE)*

The worst single event that could occur at any time with maximal release of chemical agent from a munition, bulk container, or process as a result of an unintended, unplanned, or accidental occurrence. The event must be realistic with reasonable probability of occurrence.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: activity, worst-case activity**

### *maximum protection*

The level of protection that Congress requires to be provided to the general public, the environment, and workers involved in the the destruction of chemical agent and munitions.

**Source:** Public Law 99-145, *The Department of Defense Authorization Act of 1986*.

### *media center*

A facility established at the scene of a CAI to coordinate all PA activities. A media information center for IRF Commander's PAO.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: joint information center**

### *medical response team*

Refers to both on- and offpost response teams. Onpost, the Medical Response Team (MRT) is led by a physician or physician's assistant and provides: emergency medical triage, treatment, stabilization, and evacuation of victims from the chemical event site to a medical treatment facility. Offpost the medical response team is most likely to be the Emergency Medical Services (EMS) team who will provide the same services.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: first aid, triage**

### *memorandum of agreement (MOA)*

Written memorandum of terms of agreement, resembling a contract, but intended as a record only, not to be enforceable by courts. Memorandums of agreement are often used to define relations between government agencies where a contract would be inappropriate.

**Source:** Rice, Michael Downey. *Prentice-Hall Dictionary of Business, Finance, and Law*. Prentice-Hall, Inc., 1983.

**See also: memorandum of understanding, mutual aid**

### *memorandum of understanding (MOU)*

[A document] drawn up to commit the parties loosely before the details are agreed on. A memorandum of understanding (MOU) outlines the mutual understanding of the negotiators about their intentions to proceed to an agreement without binding them into an irreversible relationship.

**Source:** Kennedy, Gavin. *Field Guide to Negotiation: A Glossary of Essential Terms and Concepts for Today's Manager*. Harvard Business School Press, 1994.

**See also: CSEPP memorandum of understanding, memorandum of agreement, mutual aid**

### *meteorological tower*

A tower carrying instruments that measure meteorological values, generally including temperature, wind speed, wind direction, and atmospheric stability.

### *mg-min/m$^3$*

Milligram minutes per cubic meter. It is a product of the concentration of a substance in milligrams per cubic meter times the exposure time in minutes.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: mg/m$^3$**

### *mg/m$^3$*

Milligrams per cubic meter. These units are used to measure agent concentration.

### *micron*

A unit of measurement equal to one-millionth ($10^{-6}$) of a meter.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *mission*

A goal which may be accomplished by performing a series of tasks.

### *mitigation*

Activities which actually eliminate or reduce the chance of occurrence or the effects of a disaster.

**Source:** Federal Emergency Management Agency. *Emergency Program Manager: An Orientation to the Position*. FEMA, 1983.

**See also: phase, preparedness, response, recovery**

### *mobilize*

Messages have been transmitted to emergency personnel to inform them of an emergency situation and to direct them to report to their designated emergency response duty stations. Mobilization and alerting of personnel may occur simultaneously.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *model case*

The input and output files associated with one run of a dispersion, evacuation, protective action, or other model.

### *monitoring*

Checking for the presence and levels of chemical agent.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: detection, sampling**

### *mustard agent*

The vesicant agents (H, HD, and HT) that cause blistering. In sufficient amounts they can be fatal if not quickly removed from exposed skin or if inhaled.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

The chemical Bis(2-choroethyl) sulfide, CAS registry number 505-60-2, in pure form and in the various impure forms that may be found in munitions as well as field, industrial, or laboratory

operations. These include Levinstein mustard (H), distilled mustard (HD), and closely related preparations. This standard is not meant to be applied to nitrogen mustards.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: nerve agent, vesicant agent**

## *mutual aid*

An agreement between jurisdictions and/or private entities to provide additional aid or resources to control and mitigate a chemical event.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: memorandum of agreement, memorandum of understanding**

## *National Contingency Plan (NCP)*

"The National Oil and Hazardous Substances Pollution Contingency Plan" (40 CFR Part 300) prepared by the Environmental Protection Agency to put into effect the response powers and responsibilities created by the Comprehensive Environmental Release, Compensation, and Liability Act and the authorities established by Sect. 311 of the Clean Water Act.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

## *national defense area*

An area established on non-Federal lands located within the United States, its possessions or territories, for the purpose of safeguarding classified defense information, or protecting DOD equipment or material.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *National Response Center*

A joint Environmental Protection Agency and Coast Guard Communications Center that takes the legally required reports of oil or hazardous substance spills or releases at or above the reportable quantities and communicates these to the predesignated OSC for their action.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: Local Emergency Planning Committee, Regional Response Team, State Emergency Response Commission**

### *National Response Team*

The group consisting of representatives of 14 government agencies (Department of Defense, Department of Interior, Department of Transportation/Research and Special Programs Administration, Department of Transportation/U.S. Coast Guard, Environmental Protection Agency, Department of Commerce, Federal Emergency Management Agency, Department of State, Department of Agriculture, Department of Justice, Department of Health and Human Services, Department of Labor, Nuclear Regulatory Commission, and Department of Energy) that implements the National Contingency Plan.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *nerve agent*

The nerve agents (GA, GB, and VX) are lethal, colorless, odorless, and tasteless agents that can be fatal upon skin contact or when inhaled. These agents attack the central nervous system by inhibiting the production of acetylcholinesterase, which is essential for proper operation of the nervous system.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

Organic esters of phosphoric acid used as a chemical warfare agent because of their extreme toxicity (Tabun-GA, Sarin-GB, Soman-GD, GF, and VX). All are potent inhibitors of the enzyme, acetylcholinesterase, which is responsible for the degradation of the neurotransmitter, acetylcholine. Symptoms result from excess accumulation of acetylcholine in neuronal synapses or myoneural junctions. Nerve agents are readily absorbed by inhalation and/or through intact skin.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: cholinesterase, mustard agent, vesicant agent**

### *neutralent*

Those materials remaining from the chemical neutralization of agents.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: neutralization**

### *neutralization*

The act of altering chemical, physical, and toxicological properties to render the chemical agent ineffective for use as intended.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: decontamination**

### *no deaths dosage*

The largest dosage which would result in no fatalities to healthy adults.

**Source:** Baronian, Charles, et. al. *Chemical Stockpile Disposal Program Final Programmatic Environmental Impact Statement, Vol. 1 (Sects. 1-8)*. Program Executive Officer, Program Manager for Chemical Demilitarization, 1988.

**See also: 1% lethality dosage, dosage, no effects dosage**

### *no effects dosage*

A calculated dosage from a chemical agent release below which a toxicity level is not expected to have short-term adverse effects on healthy adults.

**Adapted from:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: 1% lethality dosage, dosage, no deaths dosage**

### *no-observed adverse effects level (NOAEL)*

An exposure level at which there are no statistically or biologically significant increases in the frequency or severity of adverse effects (to tissue, cells, organs, etc.) between the exposed

population and its appropriate control (some effects may be produced at this level, but they are not considered as adverse, nor precursors to specific adverse effects). It is based on the highest exposure without adverse effect.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: adverse effect, lowest-observed adverse effects level**

## *no-observed effects level (NOEL)*

An exposure level at which there are no statistically or biologically significant increases in the frequency or severity of any effect (to tissue, cells, organs, etc.) between the exposed population and its appropriate control.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: lowest effects level**

## *non-surety emergency*

Events are likely to occur or have occurred that may be perceived as a chemical surety emergency or that may be of general public interest, but which pose no chemical surety hazard. This includes non-surety material emergencies.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: chemical event notification level, community emergency, limited area emergency, post only emergency, surety**

## *normal shelter-in-place*

A protective action that involves taking cover in a building, closing all doors and windows, and turning off ventilation systems. Effectiveness is improved by going into an interior room. The shelter should be opened up or abandoned after the toxic plume has passed.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: enhanced shelter-in-place, expedient shelter-in-place, pressurized shelter-in-place, shelter-in-place, specialized sheltering**

### *notification*

Following the alerting phase, information on the nature of the emergency and recommended protective actions is communicated in the notification phase.

**Adapted from:** Jacobs Engineering Group. *Emergency Response Concept Plan for the Chemical Stockpile Disposal Program*. Jacobs Engineering Group, 1987.

**See also: alert**

### *offsite*

The area surrounding the onsite area.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: offpost, onsite**

### *offpost*

The area surrounding a military installation or facility.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: onpost, offsite**

### *onsite*

An area around the scene of a chemical agent under the operational control of the OSC, technical escort officer, or the commander of the Initial Response Force, or the Service Response Force. It includes any area established as a National Defense Area.

NOTE: The onsite area may exceed the onpost area, which does not extend beyond the military installation or facility.

**Adapted from:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: offsite, onpost**

## *On-Scene Coordinator (OSC)*

The person designated to direct cleanup efforts under the NCP.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

From the *National Contingency Plan:* The Federal official predesignated by EPA or USCG to coordinate and direct Federal responses under subpart D of the NCP, or the official designated by the lead agency to coordinate and direct removal actions under subpart E of the NCP. DOD and DOE are included as OSC under subpart E.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

## *onpost*

A military installation or facility.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: offpost, onsite**

## *operations officer*

In emergency response, generally the person who manages current operational activities, as opposed to planning activities.

## *outside support agencies*

Federal agencies such as the Federal Emergency Management Agency, the US Environmental Protection Agency, and any other governmental, quasi-governmental, or private agencies that provide assistance in a chemical event (e.g., American Red Cross, Radio Amateur Civil Emergency Services, laboratories).

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

## *partially participating organization*

Organization that will activate and mobilize emergency response personnel during an exercise as specified in the extent of play agreement.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: activation, mobilize**

## *Pasquill stability*

Broad categories of atmospheric stability defined in terms of wind speed, sunlight, and cloudiness, representing the effects of thermal stratification in the lower atmosphere.

**Key to stability categories**

| *Surface wind speed* (m/sec) | ***Sunlight*** | | | ***Night*** | |
|---|---|---|---|---|---|
| | *Strong* | *Moderate* | *Slight* | *Thinly overcast or* ≥ 4/8 *low cloud* | ≤ 3/8 *cloud* |
| < 2 | A | A–B | B | — | — |
| 2–3 | A–B | B | C | E | F |
| 3–5 | B | B–C | C | D | E |
| 5–6 | C | C–D | D | D | D |
| > 6 | C | D | D | D | D |

Strong sunlight corresponds to sunny midday in midsummer in England, slight sunlight to similar conditions in midwinter. Night refers to the period from 1 hr before sunset to 1 hr after dawn. The neutral category D should also be used, regardless of wind speed, for overcast conditions during day or night, and for any sky conditions during the hour preceding or following night as defined above.

**Source:** Pasquill, F. *Atmospheric Diffusion: The Dispersion of Windborne Material from Industrial and Other Sources, 2nd ed.*. Wiley & Sons, 1974.

**See also: atmospheric stability**

### *percutaneous exposure*

The absorption of a contaminant through the unbroken skin.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *permissible exposure limit (PEL)*

Time-weighted average concentrations that must not be exceeded during any 8-hour workshift of a 40-hour workweek.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: airborne exposure limit, ceiling limit, threshold limit value**

### *personal protective equipment*

Chemical protective clothing and respiratory protection to enable responders to conduct activities while protecting themselves from contamination. This equipment should protect the skin, eyes, and respiratory tract of the responders.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *personnel reliability program (PRP)*

A program within the Army which assesses the reliability and acceptability of individuals working with toxic chemical agents.

### *phase*

One of the changing states of activity of emergency management. The phases of emergency management are preparedness (also known as readiness), response, recovery, and mitigation.

### *plume*

Effluent cloud resulting from a continuous source release.

**Source:** US Environmental Protection Agency, Federal Emergency Management Agency, US Department of Transportation. *Technical Guidance for Hazards Analysis: Emergency Planning for Extremely Hazardous Substances*. EPA, FEMA, DOT, 1987.

### *plume/track/hazard track*

The geographic representation of the output of a dispersion model.

### *population*

This refers to a group of items/persons/animals belonging to a well-defined class from which items/persons/animals are taken for measurement.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *population at risk*

The population potentially affected by concentrations of agent. The PAR is calculated by determining the population within the radial distance estimated to be affected by lethal dosages of agent from a release.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *post only emergency*

Events are likely to occur or have occurred that involve agent release with chemical effects beyond the chemical limited area. Releases are not expected to present a danger to the offpost public. This level will be declared when the predicted chemical agent no effects dosage extends beyond the chemical limited area but does not extend beyond the installation boundary.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: chemical event notification level, community emergency, limited area emergency, non-surety emergency**

## *Precautionary Zone (PZ)*

The outermost zone extending beyond the protective action zone. Theoretically, it has no limits. Practically, its furthest point is that beyond which emergency planning for the CSEPP would not be required under most conditions.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: emergency planning zone, immediate response zone, protective action zone**

## *preliminary assessment (from the National Contingency Plan)*

Review of existing information and an off site reconnaissance, if appropriate, to determine if a release may require additional investigation or action. A preliminary assessment may include an on site reconnaissance, if appropriate.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: accident assessment**

## *preparedness*

Preparedness is the phase of emergency managementtaken in advance of an emergency. Preparedness activities develop operational capabilities and facilitate an effective response in the event an emergency occurs. Typical preparedness activities include response planning, resource management, training for response personnel, hazard analysis, building and maintaining EOCs, communications, and warning systems.

**Source:** FEMA. *Objectives of Local Emergency Management*. CPG 1-5, 1984.

**See also: phase, response, recovery, mitigation**

## *pressurized shelter-in-place*

A protective action that is similar to normal shelter-in-place except that the infiltration of contaminated air from outside the shelter is effectively prohibited by drawing outside air into the

shelter through a filter that removes chemical agent. This filtered air creates a positive pressure in the shelter so that clean air is leaking out instead of contaminated air leaking in.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: enhanced shelter-in-place, expedient shelter-in-place, normal shelter-in-place, shelter-in-place, specialized sheltering**

## *primary communications system*

The communications system designated to carry the bulk of traffic.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: backup communications system, communications system**

## *Program Evaluation And Review Technique (PERT) chart*

A chart that represents tasks graphically and indicates task dependencies by showing predecessors and successors, typically by means of boxes and adjoining lines. Also called a network chart.

**See also: Gantt chart**

## *protection factor*

The measure of exposure reduction provided by a protective device or shelter. A protection factor of 100 means that the protected exposure is 1/100th of the unprotected exposure.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

With personal protective equipment, it is the ratio of the concentration outside the protective equipment to the concentration inside the protective equipment. Measurement sites are critical for proper determination (e.g., for a protective mask, the measurements inside the mask would be made at a subject's breathing zone, and the measurements outside the mask would be made in a corresponding zone).

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: personal protective equipment**

### *protective action*

An action or measure taken to avoid or reduce exposure to a hazard.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *protective action decision (PAD)*

The protective action(s) chosen to be implemented by an emergency management organization.

**See also: protective action, protective action recommendation**

### *protective action decision-making*

The process whereby offpost public officials make a selection of one or more actions to protect the threatened population. The Army will make recommendations as part of its accident assessment and offpost notification processes.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: accident assessment, notification, protective action, protective action decision**

### *protective action recommendation (PAR)*

Action(s) recommended by the Army to protect the community from the effects of a chemical accident or incident.

**See also: protective action, protective action decision**

### *protective action zone (PAZ)*

The second planning zone beyond the immediate response zone. Generally it extends to about 21 miles from the installation's chemical storage area, and at some installations it extends further.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: emergency planning zone, immediate response zone, precautionary zone**

### *public affairs officer (PAO)*

The Army installation person responsible for public affairs. The PAO is the installation counterpart to the offpost Public Information Officer (PIO).

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *public alert and notification system*

The system for obtaining the attention of the public and providing appropriate emergency information. Sirens are the most commonly used public alert devices but frequently are supplemented by tone alert radios, visual warning devices for the hearing impaired, and telephone-based alert/notification systems.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: alert, notification, public alerting**

### *public alerting*

The system for obtaining the attention of the public about a chemical event that may require that they take protective action. Sirens are the most commonly used public alert devices, but they frequently are supplemented by tone alert radios, visual warning devices for the hearing-impaired, and telephone-based alert and notification systems.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *Public Information Officer (PIO)*

The person on the emergency management team who is in charge of public information affairs. The PIO is the counterpart to the onpost Public Affairs Officer (PAO).

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *public outreach*

Efforts designed to involve the public in the CSEPP and CSDP decision making processes, to convey accurately the ability of these programs to reduce risk to the public from the chemical

stockpile, and to educate the public on their role in the response to a chemical stockpile emergency.

### *purcutaneous exposure*

Exposure that occurs through the skin.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *push packages*

Contingency stocks, maintained at a designated location, for use during a chemical accident or incident at that installation, which may be made available for a chemical accident or incident at other installations.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

A push package is generally a pre-configured shipment that will be automatically sent to the scene of an accident.

### *RDTE dilute solution*

Solution of chemical agents in concentrations and quantities reduced by admixture (dilution) to levels that can be handled with the same precautions associated with hazardous industrial chemicals (acids, bases, or solvents).

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: dilute solutions**

### *readiness*

During the readiness phase, Army emergency response forces prepare and coordinate appropriate response plans. They also establish organizations to execute plans, train personnel and organizations to the required level of proficiency, evaluate the response organization's ability to execute plans, and educate the public to the potential threat, including emergency response procedures.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

Phase of preparations to deal with an accident or incident.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: preparedness, response, recovery, mitigation**

## *reception center*

There are two primary components of an evacuee support system: reception and mass care. Reception is the process of receiving evacuees, determining their needs (i.e., medical, housing, family reunification, etc.) and assigning them to appropriate resources. The more structured approach calls for evacuees to report to a reception center located on a main evacuation route, have their needs determined and be referred to a mass care center or other appropriate facility.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: facility, mass care center**

## *recovery*

The final phase of the emergency management cycle. Recovery continues until all systems return to normal, or near normal. Short-term recovery returns vital life support systems to minimum operating standards. Long-term recovery from a disaster may go on for years until the entire disaster area is completely redeveloped, either as it was in the past or for entirely new purposes that are less disaster-prone.

**Source:** Federal Emergency Management Agency. *Emergency Program Manager: An Orientation to the Position*. FEMA, 1983.

a) The period following the response when immediate threat to human life has passed and general evacuation has ceased. This phase includes:

   1) Recovery phase decontamination, as necessary.
   2) Reentry.
   3) Restoration.

b) Recovery refers to the actions taken to restore an affected area to its preemergency condition. Thus, it refers to the process of reducing exposure rates and concentrations in the environment to acceptable levels for unconditional occupancy or use after the emergency phase of an accident or incident. Recovery differs from reentry in that recovery encompasses the effortsand resources needed to return the affected area to its preaccident condition.

Recovery includes both short- and long-term activities. Short-term recovery returns vital systems to minimum operating standards, seeks to restore critical services to the community, and provides for the basic needs of the public. Long-term recovery focuses on restoring the community to its normal, or improved state of affairs and on returning life to normal or improved levels. The recovery period is also an opportune time to institute mitigation measures, particularly those related to the recent emergency.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: phase, preparedness, response, mitigation**

## *reentry*

The entry of persons into an affected (i.e., contaminated or potentially contaminated) area following a release. The terms "controlled reentry," "restricted reentry," "occupational reentry," and "emergency reentry" refer to the temporary, short-term readmission of persons (primarily emergency workers) into a restricted zone for the purpose of performing specific tasks (such as monitoring teams). The terms "uncontrolled reentry," "unrestricted reentry," and "general reentry" are used in the context of uncontrolled, permanent reaccess referring to those provisions leading up to unlimited public access, reoccupation, or use of previously restricted zones after the hazards have been reduced to acceptable levels or have been declared "clean."

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

## *Regional Response Team (RRT)*

The representatives of federal agencies and a representative from each state in the federal region. During a response to a major hazardous materials incident involving transportation or a fixed facility, the on-scene coordinator may request that the RRT be convened to provide advice or recommendations in specific issues requiring resolution.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: Local Emergency Planning Committee, National Response Team, State Emergency Response Commission**

## *release (from the National Contingency Plan)*

Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant). For purposes of the NCP, release also means threat of release.

Excluded will be any release that results in exposure to persons solely within a workplace, with respect to a claim such persons may assert against the employer of such persons.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *release*

Controlled or uncontrolled escape of chemical agent(s) into the environment.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *relevant and appropriate requirements (from the National Contingency Plan)*

Those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that, while not applicable to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstances at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *relocation*

Temporary or permanent removal of a population or community in response to an emergency or disaster. A protective action in which persons are asked to vacate a contaminated area to avoid chronic exposure from deposited contamination. Relocation is distinguished from evacuation in that during an emergency, the potential for a release exists; in contrast, during the relocation phase, there is no passing plume.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: evacuation, protective action**

### *remedial design (from the National Contingency Plan)*

The technical analysis and procedures that follow the selection of remedy for a site and result in a detailed set of plans and specifications for implementation of the remedial action.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

## *remedial investigation (from the National Contingency Plan)*

A process undertaken by the lead agency to determine the nature and extent of the problem presented by the release. The remedial investigation emphasizes data collection and site characterization, and is generally performed concurrently and in an interactive fashion with the feasibility study. The RI includes sampling and monitoring, as necessary, and includes the gathering of sufficient information to
determine the necessity for remedial action and to support the evaluation of remedial alternatives.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: feasibility study**

## *Remedial Project Manager (from the National Contingency Plan)*

The official designated by the lead agency to coordinate, monitor, or direct remedial or other response actions under subpart E of the NCP.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

## *remedy or remedial action (from the National Contingency Plan)*

Those actions consistent with permanent remedy taken instead of, or in addition to, removal action in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment. The term includes, but is not limited to, such actions at the location of the release as storage, confinement, perimeter protection using dikes, trenches, or ditches, clay cover, neutralization, cleanup of released hazardous substances and associated contaminated materials, recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of leachate and runoff, on site treatment or incineration, provision of alternative water supplies, and any monitoring reasonably required to assure that such actions protect the public health and welfare and the environment. The term includes the costs of permanent relocation of residents and businesses and community facilities (including the cost of providing alternative land of equivalent value to an Indian Tribe pursuant to CERCLA section 126(b)) where EPA determines that, alone or in combination with other measures, such relocation is more cost-effective than, and environmentally preferable to, the transportation, storage, treatment, destruction, or secure disposition off site of such hazardous substances, or may otherwise be necessary to protect the public health or welfare. Also included will be off site transport and off site storage, treatment,

destruction, or secure disposition of hazardous substances and associated contaminated materials. The term also includes enforcement activities related thereto.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *remove or removal (from the National Contingency Plan)*

Removal of oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health, welfare, or to the environment. As defined by section 101(23) of CERCLA, remove or removal means the cleanup or removal of released hazardous substances from the environment; such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment; such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances; the disposal of the removed material; or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release. This term includes security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 104(b) of CERCLA, and any emergency assistance that may be provided under the Disaster Relief Act of 1974. The term also includes enforcement activities related thereto.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *render safe procedure (from Explosive Ordnance Disposal regulations)*

The portion of the explosive ordnance disposal procedure involving the application of special explosive ordnance disposal methods and tools to provide for the interruption of functions or separation of essential components of unexploded explosive ordnance to prevent an unacceptable detonation (AR 75-15). These procedures are to be performed only by properly trained EOD personnel per AR 75-15.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *reportable quantities (from the National Contingency Plan)*

For any CERCLA hazardous substance, the reportable quantity is established in table 302.4 of 40 CFR, Part 302, for such substance; for any other substances, the reportable quantity is 1 pound. (For chemical surety agents it is 1 pound.)

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *resource provider*

Organization providing resources such as buses, drivers, and other personnel to assist with the protection of special populations or school children.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *respond or response (from the National Contingency Plan)*

Remove, removal, remedy, or remedial action, including enforcement activities related thereto, as defined by section 101(25) of CERCLA.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *response*

Emergency response or responding to emergencies means a response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual-aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel are not considered to be emergency responses within the scope of this standard. Responses to releases of hazardous substances where there is no potential safety or health hazard (i.e., fire, explosion, or chemical exposure) are not considered to be emergency responses.

**Source:** Occupational Safety and Health Administration. "Hazardous Waste Operations and Emergency Response." *Federal Register* 54 (42), 1989.

Response activities are immediate actions taken in response to an actual or potential chemical agent release. This phase includes actions taken to eliminate the source of the release, lifesaving measures for affected personnel, safety measures for potentially affected personnel, and initial security measures taken to preclude the exposure of additional personnel.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: phase, preparedness, readiness, recovery**

### *restoration*

Removal and decontamination of all chemical warfare agents, removal of any rubble, and emergency repair of structures and facilities. These activities will reestablish major utilities and services and will return social and economic activities to near-normal levels. The terms "recovery" and "restoration" have been used in combination to refer to the entire group of activities undertaken to prepare a previously contaminated and restricted area for unlimited reoccupation and/or use by the public. This will include all efforts and resources needed to return an agent-affected area to a condition safe for public access and use.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: recovery**

### *restricted area or zone*

Area subject to protective actions, into which access will be controlled.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

An area with controlled access from which the population has been evacuated or relocated; any area to which access is controlled for the protection of individuals from exposure to contamination from chemical agents.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: access control**

### *risk*

The probability or likelihood of an adverse effect or event (e.g., injury, disease, or death) resulting from the actual use of a substance in the quantity and manner proposed. It is the product of (1) the probability that an adverse effect or event will occur under specific circumstances of exposure and (2) the probability that those specific circumstances of exposure will be realized. In quantitative terms, risk is expressed in values ranging from zero (representing the certainty that harm will not occur) to one (representing the certainty that harm will occur).

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

## *risk analysis*

The development of a quantitative estimate of risk based on engineering evaluation and mathematical techniques for combining estimates of incident consequences and frequencies.

**Source:** Center for Chemical Process Safety. *Guidelines for Chemical Process Quantitative Risk Analysis*. American Institute of Chemical Engineers, 1989.

**See also: hazard analysis**

## *risk assessment*

The scientific process of evaluating the toxic properties of a chemical and the conditions of human exposure to it, in order to both ascertain the likelihood that exposed humans will be adversely affected, and to characterize the nature of the effects they may experience. It may contain some or all of the following four steps:

a) Hazard Identification–The determination of whether a particular chemical is or is not causally linked to particular health effect(s).

b) Dose-Response Assessment–The determination of the relation between the magnitude of exposure and the probability of occurrence of the health effects in question.

c) Exposure Assessment–The determination of the extent of human exposure.

d) Risk Characterization–The description of the nature and often the magnitude of human risk, including attendant uncertainty.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: risk**

## *route alerting*

This is normally a supplement to the public alert system and is a method for alerting people in areas not covered by the primary system or in the event of failure of the primary system. Route alerting is accomplished by emergency personnel in vehicles traveling along assigned roads and delivering emergency instructions with public address systems or by door-to-door notification.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: alert, public alerting**

### *rumor*

Information unconfirmed by an official source.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *sampling*

Taking actual physical samples of materials, such as air or soil samples, to be analyzed for chemical agents.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: detection, monitoring**

### *scenario table*

A table stored by the Integrated Baseline System (IBS), each of whose entries represents a unique combination of D2PC model case, IDYNEV evacuation case, meteorological conditions, and population pattern. An implementing procedure may be selected for each combination in the table.

**Source:** Bailey, et. al. *Integrated Baseline System (IBS) Version 2.0 User Guide*. Pacific Northwest Laboratories, 1993.

**See also: decision matrix, electronic plan**

### *school children*

Children in public and private schools and day care centers.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: special populations**

### *screening*

The process of determining whether persons, vehicles, and other belongings are potentially contaminated.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: contaminated persons**

### *secure environment*

The condition that exists when chemical surety materiel is protected as specified by applicable physical security criteria as established by appropriate regulations. Failure to provide the minimum physical security required or permitting unauthorized personnel access to chemical surety materiel would cause a condition that constitutes an insecure environment. A person occupying a chemical security position or who has access to chemical surety materiel and who does not meet the suitability and reliability criteria established by the chemical PRP could cause both an unsafe and an insecure environment.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *self-aid*

Administration of a chemical agent antidote to oneself upon experiencing early symptoms of chemical agent poisoning.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: antidote, buddy-aid**

### *Service Response Force (SRF)*

A DA-level emergency response organization, commanded by a general officer, capable of performing and sustaining the CAIRA mission. The SRF is composed of the IRF and follow-on forces consisting of a staff and specialized teams from various agencies and organizations involved in the response to and recovery from a CAI.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: initial response force, augmentation force**

### *Service Response Force Commander (SRFC)*

A general officer of the Army with chemical background who has been dispatched by Headquarters, AMC, to the scene of a chemical accident or incident. Upon arrival, the SRFC assumes responsibility for all operations at the accident scene and commands all emergency forces.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: initial response force, service response force**

### *service response force exercise (SRFX)*

An exercise of the Service Response Force, conducted every two years.

**See also: direction and control exercise, full-scale exercise, Service Response Force, tabletop exercise**

### *shelter-in-place*

A protective action that involves taking cover in a building. Generally, any building suitable for winter habitation will provide some protection with windows and doors closed and heating, ventilation, and air conditioning systems turned off. Effectiveness can be increased by methods such as using an interior room or basement, taping doors and windows, and employing other systems to limit natural ventilation. In CSEPP there are four types of shelter-in-place: normal, expedient, enhanced, and pressurized.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: evacuation, protective action**

### *short-term exposure*

Multiple or continuous exposures occurring over a week or so.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *short-term public emergency guidance level (SPEGL)*

A suitable concentration of a substance in air (as a gas, vapor, or aerosol) for unpredicted, single, short-term, emergency exposure of the general public.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: action level**

### *simulation cell (SIMCELL)*

An area that may be set up during a CSEPP exercise as part of the control organization. A special group of controllers make up the SIMCELL. These controllers, who are knowledgeable about the response capabilities and activities of organizations or individuals, respond to telephone calls from players and inject implementing messages from the MSEL.

**Source:** Oak Ridge National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises*. ORNL, 1994.

### *site inspection (from the National Contingency Plan)*

An on site investigation to determine whether there is a release or potential release and the nature of the associated threats. The purpose is to augment the data collected in the preliminary assessment and to generate, if necessary, sampling and other field data to determine if further action or investigation is appropriate.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *site-specific emergency response concept plan*

A concept plan developed for a specific chemical agent stockpile location by applying the concepts and methodologies of the ERCP. Each site-specific concept plan categorizes the chemical events that could occur at that location and examines the topographic, meteorological, and population characteristics of the area to develop proposed EPZ boundaries and identify appropriate protective actions. (See Sect. 9, Item I 1.)

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: emergency planning guide, emergency response concept plan**

### *size classes of releases (from the National Contingency Plan)*

Refers to the following size classifications that are provided as guidance to the OSC for meeting pollution reporting requirements in subpart B of the NCP. The final determination of the appropriate classification of a release will be made by the OSC based on consideration of the particular release (size, location, and impact). a. Minor release means a release of a quantity of hazardous substances, pollutants, or contaminants that poses minimal threat to public health or welfare and the environment. b. Medium release means a release not meeting the criteria for classification as a minor or major release. c. Major release means a release of any quantity of hazardous substances, pollutants, or contaminants that poses a substantial threat to public health or welfare or the environment or results in significant public concern.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *source term*

The quantity and mode of chemical agent release.

**Source:** Center for Chemical Process Safety. *Guidelines for Chemical Process Quantitative Risk Analysis*. American Institute of Chemical Engineers, 1989.

### *special facility*

A facility of particular interest for emergency management, such as a school or hospital.

**See also: emergency facility, facility**

### *special populations*

Those individuals or groups that may be institutionalized or have needs that require special consideration in emergencies.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *specialized sheltering*

Commercial tents or structures explicitly designed for protection in chemical environments.

**Source:** Rogers, et. al. *Evaluating Protective Actions for Chemical Agent Emergencies*. Oak Ridge National Laboratory, 1990.

**See also: enhanced shelter-in-place, expedient shelter-in-place, normal shelter-in-place, pressurized shelter-in-place, shelter-in-place**

### *spokesperson*

An emergency response staff member with the responsibility for delivering emergency public information to the media.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

### *staging area*

An area designated for receiving, storing, and allocating resources.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *standard*

Anything taken as a basis of comparison; level or degree of excellence considered as a goal or as adequate; model.

**Source:** Barnhart, Clarence L. and Barnhart, Robert K., eds. *The World Book Dictionary*. Doubleday, 1979.

### *State Emergency Response Commission (SERC)*

The state planning group designated by SARA, Title HI legislation as the state coordinating body for hazardous materials activities.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: Local Emergency Planning Committee, National Response Team, Regional Response Team**

### *status board*

A summary of the current situation, used to keep emergency responders up to date. A status board may be written on a wall display, displayed with an overhead projector, or displayed on a computer screen.

### *stay time*

Allowable time for an emergency worker to be dressed out in personal protective equipment.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: personal protective equipment**

### *Superfund Amendments and Reauthorization Act of 1986 (SARA)*

Public law that amended CERCLA. Title III of SARA includes detailed provisions for community emergency planning for fixed chemical facilities.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

### *surety*

**See: chemical surety**.

### *tabletop exercise (from FEMA)*

An activity in which elected or appointed officials and key staff with emergency management responsibilities are gathered together informally, usually in a conference room, to discuss various simulated emergency situations. The exercise is designed to elicit constructive discussion by the participants without time constraints as they examine and then attempt to resolve problems based on existing emergency operations plans. The purpose is for participants to evaluate plans and procedures and to resolve questions of coordination and assignment of responsibilities throughout the exercise in a non-threatening format and under minimum stress (2 to 4 hours).

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: direction and control exercise, full-scale exercise, Service Response Force Exercise**

### *task*

An activity which is carried out in an effort to achieve a goal.

### *task dependency*

A relationship between the start or end times of two tasks. These include finish-to-start relationships (one task cannot begin until another is completed), start-to-start relationships (one task cannot begin until another has begun), start-to-finish relationships (one task cannot be completed until another has started), and finish-to-finish relationships (one task cannot be completed until another is completed).

**See also: task**

### *task link type*

**See: task dependency**.

### *technical escort*

Individuals technically qualified and properly equipped to accompany designated materiel, which requires a high degree of safety and security during shipment.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *threshold*

The dose or exposure at which a specific effect begins to be produced.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *threshold dose*

The smallest amount of toxic substance that can produce the first recognizable injuries (e.g., irritation of the skin, eyes, or nose; miosis).

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *threshold limit value (TLV)*

A value that refers to airborne concentrations of substances and represents conditions under which it is believed nearly all workers may be repeatedly exposed day after day, without adverse health. A table of these values and accompanying precautions is published annually by the ACGIH.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: airborne exposure limit, ceiling limit, permissible exposure limit**

### *time of impact*

The time at which an area is first affected by a chemical agent release.

### *time-weighted average*

A time-integral of the instantaneous exposure (such as, the cumulative concentration) divided by the length of time for the exposure period. There are basically four methods for estimating time-weighted average exposure. Adequate distribution models must be used to represent the exposure to the target populations using all methods. The four methods are: a. Full-period single samples. b. Full-period consecutive samples. c. Partial-period consecutive samples. d. Grab samples.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: dosage**

### *Title III*

The "Emergency Planning and Community Right-to-Know Act of 1986."' A law that requires the establishment of state and local planning structures (SERCs and LEPCs) for emergency planning for hazardous materials incidents. It requires (1) location site-specific planning around extremely hazardous substances, (2) participation in the planning process by facilities storing or using hazardous substances, and (3) notifications to SERCs and LEPCs of releases of certain hazardous substances. It also provides for mechanisms to provide information on hazardous chemicals to the public.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

## *Topologically Integrated Geographic Encoding and Reference Line (TIGER/Line) Data*

Extracts of the US Census Bureau's national computer-readable map database. Each TIGER/Line file covers one county, and contains data on line features (roads, rivers, railroad tracks, boundaries, etc.), landmarks (including point landmarks such as schools and area landmarks such as parks), and polygons (such as census blocks).

**Source:** US Bureau of the Census. "1992 TIGER/Line Files: Helping You Map Things Out." US Bureau of the Census, 1993.

## *Toxic Hazard Analysis Model for Industrial Chemicals (THAMIC)*

An atmospheric dispersion model developed by Trinity Consultants, Inc.

## *toxicity*

The capacity of a substance to induce injury. It describes the nature, degree, and extent of undesirable effects.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

## *traffic control*

All activities accomplished for the purpose of facilitating evacuation in vehicles along specific routes.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

## *traffic control point (TCP)*

A location that is staffed to ensure the continued movement of traffic inside or outside an area of risk. Traffic control is a temporary function to be implemented at points where normal traffic controls are inadequate or where redirection of traffic becomes necessary due to emergency conditions.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: access control point, traffic control**

### *transit-dependent persons*

Individuals who do not have their own transportation and must depend on others for transport in the event of an evacuation. Examples of transit-dependent individuals range from those who do not drive due to disability (e.g. blindness) to those who normally rely on public transportation or are simply stuck at home while a family member is out with the car. They may or may not be disabled.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: special populations**

### *triage*

The process of sorting or selection of patients to determine priority of care to be rendered to each.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: medical response team**

### *two-person concept*

A system designed to prohibit access by an individual to CSM by requiring the presence at all times of at least two authorized personnel capable of detecting incorrect or unauthorized procedures with respect to the task being performed. Each person must be familiar with applicable safety and security requirements.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

### *unitary chemical munitions*

Munitions designed to contain a single-component chemical agent for release on a target.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *vapor*

The gaseous form of substances that are normally in the solid or liquid state that can be changed to this state by increasing the pressure or decreasing the temperature. These vapors will diffuse.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: aerosol, liquid droplets**

### *vesicant*

Causing blisters or vesicles.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *vesicant agent*

A chemical agent that induces blistering.

**Source:** Department of the Army and the Federal Emergency Management Agency. *Planning Guidance for the Chemical Stockpile Emergency Preparedness Program*. DA and FEMA, 1994.

**See also: nerve agent**

### *vesication*

The process of blistering.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

### *volatility*

The rate of evaporation of a substance.

### *volunteer*

A person who serves without pay.

**Source:** Barnhart, Clarence L. and Barnhart, Robert K., eds. *The World Book Dictionary*. Doubleday, 1979.

## *VX*

The chemical Phosphonothioic acid, methyl-S-[2-(bis(1-methylethyl)amino)ethyl] 0-ethyl ester, CAS registry number 50782-69-9, in pure form and in the various impure forms that may be found in storage as well as in industrial, depot, or laboratory operations. Agent VX is a nerve agent.

**Source:** US Army Center for Health Promotion and Preventive Medicine (Provisional). *Glossary of Terms for Chemical Agents and Chemical Defense Equipment*. USACHPPM, 1994.

**See also: nerve agent**

## *warning point*

A twenty-four hour designated location where emergency notification(s) would be received.

**Source:** Argonne National Laboratory. *Chemical Stockpile Emergency Preparedness Program Exercises, Appendix C: Exercise Objectives, Evaluation Elements, and Points of Review, Change 1*. Argonne National Laboratory, 1994.

**See also: notification**

## *wedge*

An angle centered about the downwind bearing. Used to indicate a larger area of concern for emergency planning than that provided by the output of a dispersion model. For example, the D2PC dispersion model assumes that the area surrounding the release is flat and open, and that there will be no changes in wind direction after the release. For this reason, a wedge is often used to account for model limitations.

## *wet deposition*

The process by which precipitation (such as snow or rain) removes a chemical from the air. Washout occurs when the precipitation falls through the chemical cloud and carries some of the chemical to the ground. Rainout occurs when the chemicals are entrained into a precipitation cloud and then the cloud precipitates out into rain or snow and carries the entrained chemical to the ground. While wet deposition reduces the direct downwind atmospheric hazard, precipitation puts the chemical on the ground where it may present a hazard. Some may evaporate for further cycles of downwind travel.

**Source:** Department of the Army. *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*. DA PAM 50-6, 1991.

**See also: dry deposition**

### *work plan*

**See: daily work plan**

### *worst-case activity*

The onpost activity that puts the most people or property at risk, as selected by on- or offpost emergency managers.

**See also: activity, maximum credible event**